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CampusReport



UNIVERSITY OF DAYTON
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Sparks of
creativity



Magnetic materials researchers Sam Liu and Don Lee win UDRI's top award

University of Dayton Research Institute researchers Shiqiang (Sam) Liu and Don Lee, who earned international attention for breakthroughs in permanent magnet technology, have won UDRI's 2005-06 Wohlleben-Hochwalt Outstanding Professional Research Award.

Liu, a distinguished research engineer,

leads the magnetic materials group, where Lee is a senior materials scientist. They will be recognized April 13 at the Research Institute's annual awards banquet.

Their work will have a significant impact on the permanent magnet industry, a market that is expected to more than double in the next eight years as hybrid vehicles

Research by Sam Liu (left) and Don Lee will have an impact on the booming permanent magnet industry, as hybrid vehicles grow in popularity.

— which contain a significantly higher proportion of magnetic materials than traditional cars — grow in popularity.

"Permanent magnet materials play critical roles in countless commercial and military applications, such as computer, automobile, communication, medical-imaging, power and navigation systems," Liu said. "Every automobile uses 40 to 60 magnets, while the average American household uses 50 to 200 magnets. Creating a better magnet means creating a smaller, lighter and better electromagnetic device."

In 2003 Liu and Lee developed a new type of rare-earth permanent magnet whose poten-

tial power level exceeded that of any magnet of its kind. These magnets include materials at the nanoscale (one nanometer equals one-billionth of one meter), and the breakthrough was significant because researchers around the world had not been able to successfully synthesize this type of bulk, textured nanocomposite magnet, which scientists believed would have great magnetic strength and be lightweight and highly durable.

Working with other UDRI magnetics researchers, the pair found a way to align nanometer-sized particles of magnetic materials that were anisotropic, or textured, with grains aligned in one direction — facilitating the magnet's strength and durability. Since then, with the continued support of the Defense Advanced Research Projects Agency, the Air Force, the Office of Naval Research, the Army Research Office and the Department of Energy, Liu and Lee have achieved ever-higher magnetic energy levels that remain well ahead of nanocomposite permanent magnet energy levels reported around the world. Efforts are under way to transition their technology to industry for commercial use.

"Because of the many advantages of this new technology and the nanograin composite magnets developed at UDRI, such as high magnetic performance, low production cost, improved corrosion resistance, enhanced fracture toughness and improved thermal stability, it is highly anticipated that these magnets will have a significant impact on the magnet industry and our society," Liu said.

Open house to mark 35th anniversary of Roesch Library

Roesch Library will celebrate its 35th birthday with an open house from 3 to 5 p.m. on Monday, April 3, in the library gallery.

UD obtained Title I funds from the Higher Education Act of 1965 to build the new library, which was finished in December 1970. Over that Christmas break, staff and student volunteers pushed truck after truck of books through the tunnel that connects Albert Emanuel Hall to Roesch Library.

The new building was "a work of dedication and love that was inspired by the presence of UD's five Marianist librarians: Brother Frank Deibel, Brother William Fackovec, Brother Walter Klick, Father Theodore Koehler and Brother Raymond Nartker," said Nicoletta Hary, curator of rare books and special collections.

The open house also launches National Library Week and celebrates National Library Workers Day. "We hope to not only honor Roesch Library's anniversary, but to emphasize its place as the intellectual heart of campus," said Heidi Gauder, coordinator of instruction and government documents librarian. "We will be honoring accomplishments of staff and students who have helped the library to grow over the years, making it what it is today."

The University community is invited to enjoy cake and punch in the recently refurbished library.

Last issue of *Campus Report* for the year

This is the last print edition of *Campus Report* for the 2005-06 academic year. The next edition will be published on Friday, Sept. 6.

Campus News Digest, the weekly e-mail newsletter, will continue to be sent each Thursday afternoon. "UD Quickly" at <http://www.udayton.edu/udq> is updated weekly.

Cover photo: Junior Ellie Richards uses a grinder on her welded linear structure sculpture "Exit Strategies." For more on student inquiry, exploration and creativity, see the Stander Symposium preview beginning on Page 4.

CampusReport



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Heft to take leave to expand Institute for Advanced Catholic Studies at USC

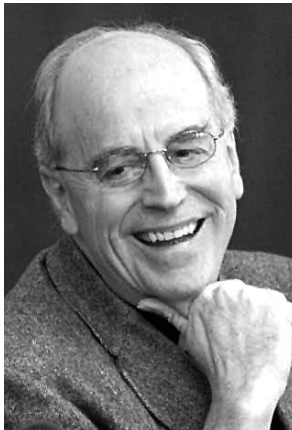
McGrath named professor of faith and culture

For nearly six years, Father James L. Heft, S.M., has juggled two jobs, working full time as chancellor and professor of faith and culture at the University of Dayton while serving part time as president of the fledgling Institute for Advanced Catholic Studies at the University of Southern California.

This summer, he will take a leave from his UD post to move to Los Angeles to expand the institute through a fundraising campaign and continued research and programming in such areas as religion and violence, Catholic intellectual tradition, interfaith dialogue, and passing the faith to the next generation. Father Jack McGrath, S.M., has been named professor of faith and culture, a three-year appointment.

Heft will retain tenure at UD, where he's taught since 1977, while becoming the Alton Brooks Professor of Religion at USC. He

will maintain ties to UD by giving an annual public lecture, offering workshops on "hiring for mission," developing a retreat for new faculty, and continuing to serve on the mission and identity committee of the board of trustees.



Heft

Ty Greenless, Dayton Daily News

Brother Stephen Glodek, S.M., provincial of the Marianist Province of the United States, said the province supports Heft's work to build an international center that supports Catholic scholars. "We believe it (the institute) has the potential to make an important contribution to the future of Catholic higher education in the United States," Glodek said. "Your loss to one of our key Marianist ministries will be a gift to the entire Catholic Church in the United States."

UD President Daniel J. Curran, who serves on the board of trustees of the Institute for Advanced Catholic Studies, said, "selfishly, I'm sorry to see Father Jim leave the University of Dayton, even for a short time, because of all of his contributions to advancing UD's Catholic, Marianist mission. On the other hand, I'm excited by

his vision of developing an international community of world-class scholars committed to research on Catholic and interfaith issues."

The center, when fully endowed, will be modeled after the country's other four major research institutes — the Institute for Advanced Studies in Princeton, N.J.; the Center for Advanced Studies in the Behavioral Sciences in Palo Alto, Calif.; the Woodrow Wilson Center in Washington, D.C.; and the National Center for the Humanities in the Research Triangle in North Carolina. For a year, selected professors will reside at the institute, exchange ideas with other scholars and conduct research.

"Father Jim has been a prime mover in turning the vision of an Institute for Advanced Catholic Studies into a reality at the University of Southern California," said USC President Steven B. Sample. "Bringing tremendous energy and creativity to this task, and now to the ranks of our professoriate, he is helping to establish a vibrant source of intellectual inquiry and spirituality for not only our students, faculty and the wider community of Los Angeles, but also for researchers from around the world."

USC hosts a branch of Hebrew Union College and has a close relationship with a mosque that operates under the Omar Ibn Al Khattab Foundation. In many ways, it's a perfect setting for Heft's research. The author of a book on papal infallibility and more than 130 articles and chapters on issues such as academic freedom and Catholic identity, much of his attention since 9/11 has shifted to interfaith issues. In 2004, he edited *Beyond Violence: Religious Sources for Social Transformation in Judaism, Christianity and Islam*. This summer, he will convene a group of 15 Christian, Jewish and Muslim scholars and explore the "topic of intellectual humility in each tradition" for a book expected to be published in 2007.

The decision to relocate to Los Angeles was not easy. "I have wonderful friends and colleagues here," he said. "Unlike 1950, higher education has many Christians with Ph.D.s, but we still don't have many Catholic intellectuals — people whose faith is not just a personal commitment but an intellectual experience. There's a great need for this institute."

—Teri Rizvi

Terence Lau named Supreme Court fellow

Terence Lau, assistant professor of business law, has been named the 2006-07 Supreme Court fellow assigned to the U.S. Supreme Court. He will start his appointment this fall.

Lau will be assigned to the office of the administrative assistant to the chief justice, which aids in administrative, policy and ceremonial responsibilities. Lau will brief distinguished court visitors on the workings of the American judicial system, as well as supervise the court's judicial internship program.

The Supreme Court Fellows Program was created in 1973 by the late Chief Justice Warren E. Burger to provide a firsthand understanding of the judicial branch to individuals from diverse professions and academic backgrounds. Each year, four fellows are selected by a commission comprised of 11 members appointed by the chief justice. Fellows are assigned to work with the Supreme Court, Federal Judicial Center, Administrative Office or Sentencing Commission.

During interviews in January in Washington, D.C., Lau had his first opportunity to view the Supreme Court building and court inner chambers.

He said highlights included the panel interview. Lau said panel members were very interested in hearing of his past scholarship in law reviews as well as his efforts to deliver international opportunities to University of Dayton students. He also met Supreme Court Justices Ruth Bader Ginsburg, Stephen Breyer and Antonin Scalia and Chief Justice John Roberts.

Lau received a law degree from Syracuse University in 1998. He previously was an attorney with the Ford Motor Co. international practice group in Dearborn, Mich., and was director of ASEAN Government Affairs for Ford's Asia Pacific operations in Bangkok, Thailand. He will take a leave of absence from teaching and return to the classroom in fall 2007.



Lau

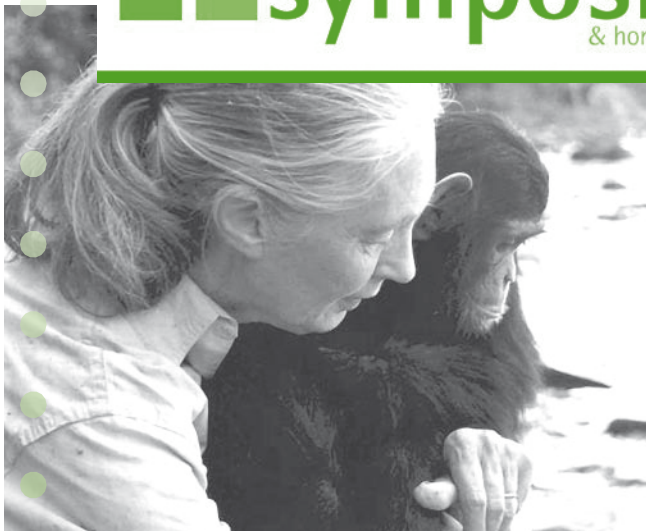
For more news, see <http://campusreport.udayton.edu>



Bro. Joseph W.

stander 18th annual symposium

& honors convocation



Jane Goodall keynote to offer 'Reason for Hope'

Jane Goodall, chimpanzee expert and conservationist, will present the Stander Symposium's keynote address, "Reason for Hope," from 9:30 to 11:15 a.m. on Wednesday, April 5, in the Frericks Convocation Center. Goodall's presentation is free and open to the public, but tickets are required and are available online at <http://www.udayton.edu/~ku/tickets/>.

Best known for her definitive study of chimpanzees in Tanzania's Gombe National Park, Goodall is recognized throughout the world for her environmental conservation efforts. She was named by Queen Elizabeth as a Dame of the British Empire, was selected by U.N. Secretary General Kofi Annan as one of 10 United Nations Messengers of Peace, and she was recently inducted into the French Legion of Honor. She has been featured in numerous television specials and an IMAX film.

Goodall, who turns 72 on April 3, travels an average of 300 days per year, speaking about threats facing chimpanzees, environmental crises and her reasons for hope that the human race will remedy the problems it has imposed on Earth. She bases her reasons for hope on the problem-solving abilities of the human brain, the determination of young people, the indomitable human spirit and the resilience of nature — all factors that can be harnessed to ensure the survival of life on Earth. She continually urges her audiences to recognize their personal

responsibility and ability to effect change through consumer action, lifestyle change and activism.

Goodall, who holds a Ph.D. in ethology from Cambridge University, is the author of *The Chimpanzees of Gombe: Patterns of Behavior* (Harvard University Press, 1986) and more than 20 other books, including a best-selling memoir, *Reason for Hope*. Her most recent book is *Harvest for Hope: A Guide to Mindful Eating*.

She is the founder of the Jane Goodall Institute based in Arlington, Va., which works to protect chimpanzees and their habitats, and has established community-centered conservation and development programs for villages in several African countries. The JGI Roots & Shoots education program, with groups in more than 90 countries, motivates youth from kindergarten through college through projects that benefit people, animals and the environment.

Above: Jane Goodall at JGI Ngamba Chimpanzee Sanctuary in Uganda, with Pasa, an orphaned sanctuary chimpanzee. (Goodall does not handle wild chimpanzees.) © JGI Uganda

For the calendar of Stander Symposium events, see <http://stander.udayton.edu>. For previews of some student research that will be presented, see Pages 9-11.

Afternoon at the Stander

An afternoon at the Stander Symposium is like a daytrip to a world-class museum. No matter how hard you try, you won't be able to see it all.

Take in all you can between 1 and 6 p.m. on Wednesday, April 5. More than 150 student posters will be displayed. Faculty have proposed more than 80 different activities, including panels, performances and presentations.

Here's a sampling of the intriguing topics:

A Short-Haired Hippie and a Guy with a Cape: Catholic Personalities in American Pop-Culture
Child Soldiers in Northern Uganda: The Hidden Conflict
Smart Memory Module for Hardware Garbage Collection in Java
It Was a Drive-by Bible-ing
Forbidden Pebbling Numbers
Energy Efficiency of a Straw Bale and Solar House
Overconfidence: I'm Sure What I Know and What You Know, Too
The Exclusive Language of Laguna Beach: Do You Love It or Are You Donzo?

Add to it the UD Ethics Bowl, the Horvath Exhibit, the Issues Forum ... and it's still just scratching the surface.

Celebration of the Arts showcases student talent

The schedule for Celebration of the Arts claims that it will take place from 7:30 to 9 p.m. on Tuesday, April 4, at the Victoria Theatre at 138 N. Main St. in downtown Dayton.

But the composer's program notes for one of the pieces to be performed, Russell Peck's "The Cave," puts the location "three miles below the Earth's crust, underneath a cornfield in DeKalb, Ill."

The piece will be performed by UD's Symphonic Wind Ensemble, whose conductor, Patrick Reynolds, says that "'The Cave' is a 'theater piece' — performed and danced in the dark from memory."

It has to be, for, as composer Peck writes, "In the Cave there is no sunlight. ... The musicians of the Cave never read music. How could they? All music is by feel."

The Celebration of the Arts, which will showcase the excellence of UD students in visual arts, music, dance and theater, launches UD's 18th Annual Stander Symposium. Herbert Woodward Martin, poet-in-residence, will be the master of ceremonies. Making a guest appearance will be Neal Gittleman, music director of the Dayton Philharmonic Orchestra.

Admission to Celebration of the Arts is free, but tickets are required. They are available at the Kennedy Union box office (229-2545) or <http://www.udayton.edu/~ku/tickets>. A complimentary RTA shuttle will be available the evening of the show at 6:30 p.m. and 7 p.m. at the corner of Alberta and Stewart streets.

University expands first-year learning-living communities to enhance student learning

The University of Dayton's strategy for integrating learning and living will shift into high gear this fall when entering first-year students take up residence in learning-living communities linked with their interests and/or major.

The program, which was piloted with four curricular learning-living communities in the College of Arts and Sciences in fall 2005, will expand. This year, all first-year students, as part of the enrollment confirmation process, will rank their preferences among various curricular and thematic living communities.

This new approach to assigning housing has occasioned some frequently asked questions among faculty and staff who are working with accepted students and families.

Q: Why group first-year students in learning-living communities?

A: The goal is to enhance student learning. The University integrates academic and residential learning by grouping students who share some general education courses or other interests in common. Research shows that learning-living communities help improve grades and study habits and contribute to greater student retention. In addition, programming in the residence halls can reinforce learning in the classroom. Guest lectures, film series, excursions to arts events on and off campus are some examples of co-curricular programs that have taken place.

Q: Hasn't UD always had things such as "the engineering floor?" How is this different?

A: UD has for many years had special-interest floors in residence halls, such as

Research shows that learning-living communities help improve grades and study habits and contribute to greater student retention.

premed, engineering and healthy lifestyle floors. Floormates have generally belonged to the same major or program or shared broader thematic interests.

What is new are the curricular learning-living communities. UD is now more intentional about integrating living and learning, by providing an opportunity for a critical mass of first-year students on the floor to share some classes. The curricular learning-living communities are tied to specific general education classes and are organized around related concepts.

Q: In previous years, although there were no guarantees, students who made early deposits stood a better chance of being assigned to the residence hall of their choice. Is that still the case?

A: No. Learning-living community assignments are made based on the date the student logs on to the Virtual Orientation to select course preferences.

Q: Where will each learning-living community be located?

A: Locations have not yet been determined.

Q: When will students learn where they will be living?

A: Residence hall assignments will be made and posted on Virtual Orientation by Aug. 1.

Q: How does a student select a learning-living community?

A: As part of the online deposit process, accepted students "sign" their housing contract and indicate their preferences by ranking curricular and thematic learning-living communities. As has been UD's practice historically, UD will try to accommodate student preferences but cannot guarantee them.

Q: Can students still request a particular roommate?

A: As in previous years, the University will try to accommodate, but cannot guarantee, mutual roommate requests. Although they may not have the same learning-living community options, students who would like to make a mutual roommate request should coordinate their learning-living community preferences as much ►

Preliminary data show UD's pilot learning-

Some students complained about a particular course; some, about a program. Others, about the lack of diversity on campus or the cost of attending UD.

But students who took part in two focus groups to assess their

experience in pilot first-year learning-living communities did not complain, even when prompted, about one thing — participating in a learning-living community.

The focus group research was reported in a midterm assessment summary compiled by Paul Benson, associate dean of the College of Arts and Sciences. Although most data to assess the pilots will not be available until May, the early data points to positive results.



The pilot learning-

living communities have, according to the report, five goals:

1. Students will perceive their learning-living community as making a significant, positive contribution to their academic work.
2. Students will regularly study together or discuss course-related material with others in their learning-living community.
3. Students will communicate with their professors outside of class, both face-to-face and by e-mail.
4. Students will perceive that their learning-living community aided their social transition to the University and fostered a sense of community on their residence hall floor.
5. Students will report a high level of satisfaction with their decision to attend UD.

The focus groups done by the time of the report indicated positive results for all five goals.

First, the "students ... stated unequivocally that the relationship between one or more of their fall term courses and their residence hall floor made a substantial difference to the academic environment of their floor."

Second, the students all said they quickly formed study groups and discussed course material.

Third, they reported face-to-face and e-mail communication with faculty members. "To a person," the report said, "all these students commented on the ready availability of UD faculty."

Other than the academic environment on the

floors, students pointed to the benefit of quickly.

And "to a person, the students ... re with their decision to attend UD."

The process of continuing and expanding

Faculty see positive work harder and

In November 2004, John Inglis faced dinner with some male students. They were in a learning-living community of students who had highly integrated first-year general education

"My fear," said Inglis, now director of the program, "was that they would hate each other." Spending time together, they were also living together. The timing, just before the presidential election, was a divisive conversation.

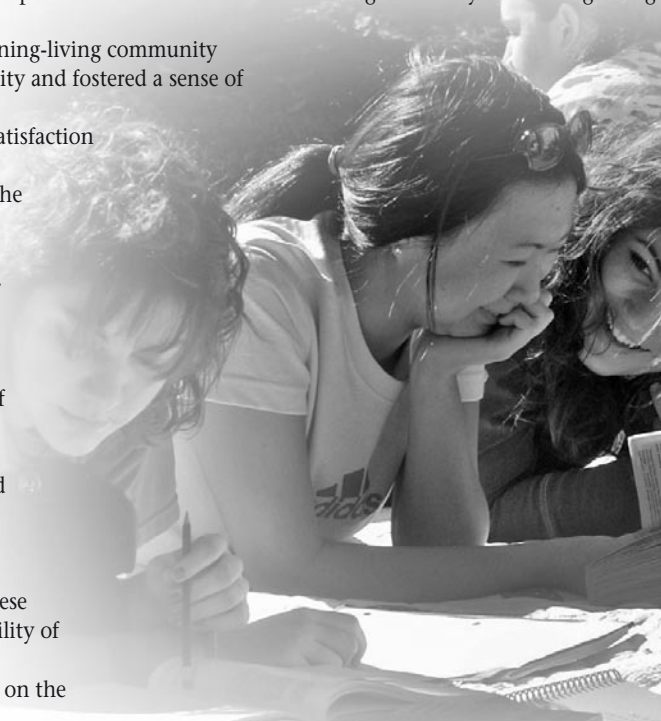
So, once at the dinner, Inglis cut to the chase. "You hate about Core?"

Nothing. They liked it. Their learning-living community was together. They were not separate.

Nevertheless, Inglis said, as he had heard from other faculty, there were huge arguments about the candidates.

Striking to Inglis about the arguments were "issues from classes spilled over into the dining hall. I had never heard students talk about issues in a way I had never heard of before. Some students were so set against other students that they had crossed those lines. Their education was not just about the class; it was their UD experience."

English department chair Brian Corbett, who has been teaching in a first-year learning-living



Living communities achieving goals

of being able to form friendships
ported that they were very happy
ending learning-living communities

Positive results: students are more engaged, and enjoy working together

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as whole somehow; this

Conniff, who is coordinating and
community this year, echoes

presents some logistical challenges related to scheduling and coordination. The report also takes note of another finding from the focus groups: Students "noted that it will be difficult to communicate to prospective students why learning-living communities are so advantageous."

—Thomas M. Columbus



some of Inglis' reaction. Students in his learning-living community (Building Communities for Social Justice) "are more engaged. And they enjoy working together."

Sometimes their work is remarkable. "Early in the term," Conniff said, "they'd say things like, 'Dayton? How far is that?'" Not an auspicious beginning perhaps for those who were expected to include service in their learning during the second term.

"I thought we'd have to organize them for that," he said, "but they just went in and did it."

For example, several contacted the student service group PAGES (Prison Action Group for Education and Service), which tutors inmates at the Montgomery

County Jail to help them prepare for the GED. The students, Conniff said, "heard a presentation from the student service group, did the orientation, organized transportation."

Another large group in the social justice learning-living community is working with Patterson-Kennedy Elementary School; others, with the Dayton Early College Academy.

Conniff also believes the students work harder. And he thinks this will lead to better writing "not because we are doing anything fancy but because they are writing about something they care about, something they are invested in."

Of the Core learning-living community, Inglis said, "It blows me away how they shut down their floors for study purposes. It was hard to imagine students, except maybe engineers, doing this."

One outcome Inglis has observed: "I get more requests now from students applying for upperclass scholarships. I think it's partially because they are sharing information with each other."

Another group being helped, according to Inglis, are those students "who are not particularly well-prepared for college and find themselves in a sink-or-swim situation.

Helped by friends, they improve their reading, writing and study skills. Many of those who entered UD less prepared are choosing to continue Core for the second semester.

"The reason is not the teachers. It's the students."

—Thomas M. Columbus

as possible. Roommate assignments will be made by Aug. 1.

Q: How many learning-living communities are there?

A: There are seven curricular communities and 11 thematic communities. See http://admission.udayton.edu/lifeatud/residential_curricular.asp and http://admission.udayton.edu/lifeatud/residential_thematic.asp

Q: Why do some students have more options than others?

A: Students' majors or programs, in some cases, will determine which communities they are eligible to consider; therefore, not all options will be available to every student.

Q: What if students haven't declared majors? How do they select a learning-living community?

A: Most of the learning-living communities are not tied to a major. All the learning-living communities are described on the admission Web site. Students should read the descriptions and try to select those that sound most interesting.

Q: Is there any easy way to explain to students how they will be assigned to a learning-living community?

A: You do have to know a lot about the process and about a particular student to answer questions. A student's major, participation in Core, Honors or other programs, his or her preferences among the curricular and thematic learning-living communities and the date he or she selects course preferences through Virtual Orientation are all factors that must be known and considered.

In the end, it may help to remember that however random or intentional housing and roommate assignments may be, "We have a pretty magnificent record of producing graduates who rave about this place," according to William Schuerman, vice president for student development. "The vast majority of our students will have a wonderful experience, no matter which residence hall they are assigned to. And the data show that if you're intentional about connecting living and learning, students perform better academically."

—Deborah McCarty Smith

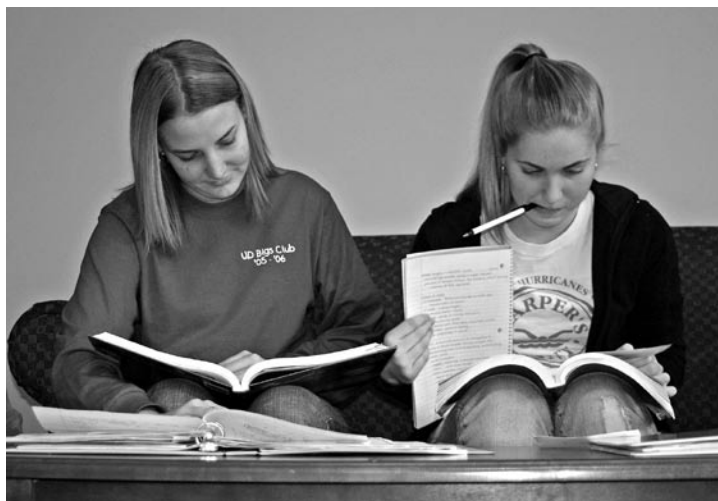
Students find learning and living together adds to their experience

When Sara Robertson looks down the hall from her room in Marianist, she doesn't see just hallmates — she sees classmates.

Robertson and her hallmates, all first-year students, take several courses together as part of the social justice learning-living community, and she said it adds a lot to her experience in class and in the residence hall.

"We all live together, and I like that a lot. I like having a roommate right there who's in my philosophy class," Robertson said.

Up and down the hall, she has classmates in her section of philosophy and religion. The students on the floor also take coordinated sections of English 101 and 102 together. All of the courses integrate social justice themes into the assignments and bonus opportunities, like lectures and movie nights. Last semester, their religion professor planned weekly movie nights in their hall followed by discussion groups where they talked about social justice issues raised by films like *Boondock Saints*, *Prince of Egypt* and *Star Wars Episode III: Revenge of the Sith*, as well as several



"I love that we live together," said Kassandre Coughlin (l) shown with Sara Robertson, her floormate in the social justice learning-living community. "You can always find someone from class and say, 'I don't understand that.'"

documentaries.

Kassandre Coughlin, who lives on Robertson's floor, says students there combine living and learning in ways big and small. They go to class together, study together for exams and give each other feedback on essays.

"I love that we live together," she said. "You can always find someone from class and say, 'I don't understand that.' ... I think our floor gets along really well. You really get to know people more."

That familiarity adds to the experience in class, they both agreed. Discussion in the philosophy class they share this semester has been "lively."

"There are 12 people from our floor in this class," Robertson said. "Everybody knows each other, and we're an outspoken group."

The experience has also taught them a lot about social justice, a subject they had at most a casual interest in when they arrived on campus. In addition to their integrated course work, the social justice learning-living community requires students to perform at least 12 hours of service each semester, and they often do this together. Both Coughlin

and Robertson volunteer as tutors in an after-school program at St. Paul United Methodist Church on Huffman Avenue.

The required service hours "are not a big deal," said Coughlin. "I'd be doing that anyway. Now I just have to write two papers on it."

The learning-living community "really sparks an interest," said Robertson. "And if you have that interest, it'll stick with you."

—Matthew Dewald

Learning-living communities: an intentional extension of UD's commitment to educating the whole person

In fall 2006, the University of Dayton will take its commitment to living and learning in community to a new level. All entering first-year students will submit preferences related to their formal course work and residential programming. Their housing options will then be closely tied to their preferences.

For William Schuerman, vice president for student development, it's a logical extension of what the University has traditionally offered: residential communities that support learning and academic achievement, promote the ideal of service and develop leadership potential.

"Learning communities are a big buzzword in higher education, but UD has had them for years," he said noting the number of special-interest floors in residence halls that have housed premed majors, engineering majors, students in the Core program and other groups. Those communities have produced the results one might expect: "Students study together, talk about their assignments and go to class better prepared. All those things are true, and faculty didn't do anything different," he said.

This year the University took the concept a step further. Faculty and housing staff collaborated closely to pilot four learning-living communities, "intentionally ensuring that a critical mass of students on the floor

would be sharing some general education courses," he said. Programs in the residence halls reinforced and complemented learning in the classrooms. "We're trying to be more intentional about ensuring that students, particularly in their first year, experience integrated living and learning. We're taking what has been an essentially random housing assignment in the first year and intentionally trying to complement the curricular experience."

Learning-living communities, in addition to helping students succeed academically, have other benefits. "There is more of a sense of community among the students, less acting out, less property damage and fewer disciplinary problems" in the residence halls, Schuerman said.

The University has had to overcome some logistical and communication hurdles as it expands learning-living communities, but Schuerman thinks it's worth it to introduce students to UD's distinctive educational mission and to make living and learning a seamless experience.

"We need to be realistic about the logistical challenges, but if we're serious about educating the whole person, we ought to be aggressively exploring learning-living communities."

—Deborah McCarty Smith

Spotlighting student achievement

Last summer, **Scott Reynolds**, a senior computer science major, ordered a build-it-yourself robot kit from the Internet because he was bored.

Computer science professor Jennifer Seitzer suggested he work with his robot on grammatical evolution — a relatively new concept in software technology.

Traditionally, computer programmers write, test and improve programs. With grammatical evolution, the programmer sets up the program and then lets the computer system design and test it.

The goal is to “let the computer design itself,” Reynolds said.

Grammatical evolution is modeled off the theory of evolution. The human designer sets rules for the desired program — called grammar — and then the computer uses those rules to produce a population of possible programs. The computer then tests each program against the designer’s predetermined fitness function. Only the “fittest” of the possible programs survive each test.

Using this process, Reynolds taught his robot to turn a light off and on.

Currently he — and his robot — are designing a boundary navigation program that will allow the robot to find a wall and then travel against it.

His ultimate goal is “a soccer-playing robot.”

Reynolds will present “Robots that Program Themselves” and demonstrate his robot’s abilities at the Stander Symposium and at the Ohio Academy of Sciences meeting.



Michael Rigby’s research involves the tectonic evolution of the Copper Basin in Nevada. The fifth-year senior geology major is studying the stratigraphy of the rocks in the hanging wall of a large, normal fault. These sediments were deposited while the fault was active. The research and interpretation of these rocks can help uncover information on how and why these sediments were deposited and how the fault system worked, adding to greater understanding of the Basin and Range Geological Province.

Rigby collected numerous rock samples for his senior thesis during six weeks of field work out West last summer with his adviser, Allen McGrew. Rigby will also present his research findings at the Ohio Academy of Sciences annual meeting to be hosted at the University of Dayton April 21-23.

The Stander Symposium will be music to your ears. The University of Dayton horn quartet will perform and give a presentation on two selections, “Quartet” for four horns by Paul Hindemith and “Suite for Horns” by Eugene Bozza. Directed by professor Richard Chenoweth, the quartet is composed of **Andrea Padgett, Angela Holmen, Michael Blake and Joshua Paulus.**

“We thought this would be an ideal forum to display their scholarly and perform-

ing abilities,” said Chenoweth, who in collaboration with Robyn Costa, oboe professor, added the symposium to the quartet’s performance dates. “We want the UD community to know that players of this caliber are present at their own university and expand the audience’s musical experience.” Costa’s double-reed trio will also perform.

Holmen, a sophomore chemical engineering major, looks to the horn for a stress release. “My music classes give me a mental

break from my other classes; they’re a way to relax.”

Padgett, a junior music performance major, said, “It’s often easier to just play beautiful music than to describe it, but once you put words to the music you are creating, it takes on a new life and the explanation can be surprising and enlightening.”



Students (from left) Joshua Paulus, Angela Holmen, Michael Blake and Andrea Padgett with Richard Chenoweth.

Bro. Joseph W.
stander 18th annual
symposium
& honors convocation

Not all Stander Symposium participants are traditional undergraduates. Some, like **Diane Helmick** and **Linda Wallace**, work in UD's Graduate School. Others, like **Chris Wiley** and **Susan Lucking**, come from the Career Services Center. They came together in Amy Krug's pilot course Writing for the Web. Students were required to participate in a service-learning project involving a non-profit group needing Web site assistance. Pooling various levels of Web experience, they worked with the Center for International Programs to assist with a Web-site redesign that included both visual and content changes.

"Each of us has varying academic goals, ranging from personal growth to the completion of a degree, but this course has been beneficial to us all in our jobs here at UD," Helmick said.

At the Stander Symposium they will present an overview of the creative process, lessons learned and how they were able to achieve their goals and meet the needs of the center. "The project enabled us to collaborate with people on campus we may not have had the opportunity to work with otherwise," said Wiley. "The added bonus was that we were able to give back to the University."

The new site, which can be found at <http://international.udayton.edu/>, went live in February. According to Tricia Penno, international communications coordinator, "the project truly laid the foundation for the site we eventually developed."

Front (from left):
Linda Wallace and
Diane Helmick;
back (from left):
Susan Lucking
and Chris Wiley.



Bro. Joseph W.
stander 18th annual
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& honors convocation

Contributing writers and photographers: Larry Burgess, Thomas M. Columbus, Matthew Dewald, Jessica Gibson-James, Amanda Hargadon, Molly Majetic, Jeanene Parsons, Shelby Quinlivan, Teri Rizvi, Deborah McCarty Smith, Kristen Wicker

If **Dario Rodriguez** offered any reaction to eyewitnesses after they identified a crime suspect in a photo line-up, that feedback had a big effect on how certain they felt about their selection.

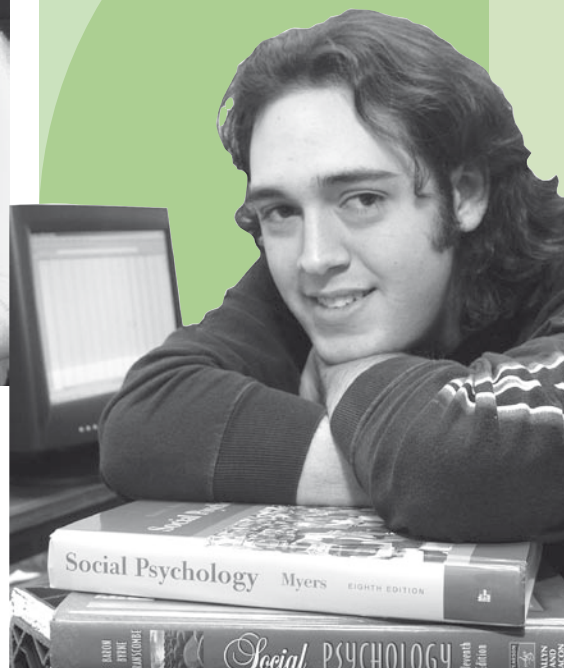
That's the major finding from a psychological study the Berry Scholar completed for his honors thesis. He's been invited to present a poster session on his research at the Association for Psychological Science's national convention in New York City on May 27.

"Usually it's mostly graduate students and professionals who are invited to present," said the senior psychology major. "It's an honor."

As part of the study, 138 psychology 101 students watched an eight-second videotaped mock crime of a young man vandalizing a wall. Each was then asked to identify the suspect from among seven photos presented either simultaneously or sequentially. Participants were given either positive, negative or no feedback about their decision.

"Those who received confirming feedback reported an increase in identification certainty," he said. "It's important because jurors often perceive the certainty with which eyewitnesses testify as an indicator of accuracy, which research has shown is not necessarily the case."

Rodriguez also found that more of the mock eyewitnesses accurately identified the perpetrator when shown photos all at once, rather than one at a time — a finding that contradicts other research studies.



For the past two years, **Jason Kramb**, a junior physics major, has worked in professor Peter Powers' lab to develop a system that will detect terahertz waves at room temperature.

The more he learned about the potential uses of terahertz waves, the more interested he became.

Terahertz waves are electromagnetic waves that could be used in airport security to detect plastic explosives and could replace X-rays because they are less damaging to tissues.

"But that all depends on having a system that detects them at room temperature," Kramb said.

Currently, they have to use a liquid helium bolometer to detect the waves which is both "expensive and time consuming," Kramb said.

"We are moving toward wide applications and developing a new system that includes an easy way to generate terahertz and an easy way to detect them," he added. "It's fun and I get to play with lasers." He will present his work at the Stander Symposium and Ohio Academy of Sciences meeting.

Danielle Carleton, a mathematics major, expected her first-year composition course to be similar to her high school English classes.

"I expected it to be grammar or learning about topic sentences in paragraphs," she said.

"Usually as a student you just report what someone else says, but our assignment was to go out and do primary research — something I'd never done before," she said.

She knew she wanted to research factors that influence childhood literacy. Carleton has always been an avid reader, but her young sister was not — until J.K. Rowling's Harry Potter series came

out. After reading Harry Potter, her sister first read books that were similar to Harry's magical world, but now she reads "everything."

Carleton wanted to figure out what had caused her sister's literary conversion.

Through interviews and focus groups,

Carleton found out that others had similar experiences after reading Harry Potter.

From her research, Carleton concluded that J.K. Rowling acts as a "literacy sponsor" — a person who influences how and what individuals read, a title usually reserved for family members and teachers.

Suresh Akepati, a graduate student in mechanical engineering, has been working to enhance the "kinematic capabilities of a robot to reach certain positions."

Through a process of analyzing equations, Akepati along with several other graduate students, has been working with adviser Andrew Murray to develop a new theory for redesigning platform manipulators in order to make them stiffer, faster and more accurate.

These manipulators are often used in automotive assembly lines to perform specific tasks such as drilling, welding or finishing. Currently they can only cover certain areas of space and are not systematically controlled to reach these areas.

Through this research, Akepati has been trying to "frame a question from the answers. I know the positions I need the mechanism to reach, but don't know where in the chain to change things."



Kramb



Carleton



Akepati



Staton



Blackwood

Alison Staton's research project involves analyzing a water channel, Aquaporin 5, in the airways and lungs. The tight bronchial constriction that afflicts patients with asthma also occurs in mice that lack AQP5.

Working with biology professor Carissa Krane, recipient of a \$221,000 three-year grant from the National Institutes of Health, Staton worked at developing a method to screen for DNA samples containing changes that could act as a predisposing factor for asthma. In addition, she analyzed proteins from the lungs of mice with and without AQP5 to further the understanding of the impact that a lack of AQP5 has on other proteins. These projects contributed to her Berry Scholars thesis, "Proteomic and Functional Genomic Analysis of Aquaporin 5."

Staton, a graduating senior, will also present her research at the Ohio Academy of Sciences meeting in April. She will attend Yale University's biological and biomedical sciences graduate program in the fall.

Jeff Blackwood's research into how childhood literacy affects adult reading comprehension was "a lot of work," but "I feel good about it because I actually found something out."

For the project assigned in his first-year composition course, Blackwood, a sophomore political science major, assembled a focus group of 14 sophomores.

He gave his participants a survey about their childhood reading experiences with parents and teachers and their attitudes toward reading as children.

Then Blackwood gave them three reading comprehension tests.

Using a spreadsheet, he compared the test scores to the childhood literacy history provided by the surveys and found that those with higher test scores had better attitudes toward reading as children. Parental involvement and how much they read as children also raised adult reading comprehension scores.

Blackwood will present his findings in a panel discussion during the Stander Symposium.

Maggie Schroeder noticed it: Oakwood City Schools have more resources than neighboring Dayton Public Schools. Question was, do the students in those districts notice it, too?

Inspired by such texts as Johnathan Kozol's *Savage Inequalities*, Schroeder, an American studies major, set out to find the answer in the senior capstone project she's working on in Una Cadegan's course. She surveyed and interviewed seventh-graders at Oakwood Junior High and Patterson-Kennedy Site-Based Academy, where Schroeder had completed an internship, to analyze how much these students know about each other.

The answer, she found, is not much.

Schroeder also wanted to know when kids realize there are inequalities between urban schools and their more affluent counterparts and how they internalize that discovery, so she also queried fifth graders.

She will present her findings during the

Stander Symposium. To complete the project, Schroeder was awarded a Learn, Lead and Serve grant, which she'll use to purchase items for the classrooms involved in her project to thank them for their help.

"I'm hoping this will generate more conversations and get people talking about how public education is funded," Schroeder said. "I also want to let the kids know this doesn't go unnoticed."



April '06

Sunday, April 2

Ebony Heritage Singers winter concert

4 p.m. Kennedy Union ballroom

Donna M. Cox, conductor

Tuesday, April 4

Celebration of the Arts

7:30 to 9 p.m., Victoria Theatre,
138 N. Main St.

Free, but tickets are required. Call the Kennedy Union box office (229-2545) or see <http://www.udayton.edu/~ku/tickets>. A free RTA shuttle will be available at 6:30 p.m. and 7 p.m. at the corner of Alberta and Stewart.

Wednesday, April 5

Stander Symposium and Honors Convocation

Keynote address by environmentalist Jane Goodall, 9:30 a.m., Frericks Center. See story on Page 4. For complete symposium schedule, see <http://stander.udayton.edu>.

Friday, April 7

Faculty meeting

3 p.m., Kennedy Union east ballroom

UD Dance Ensemble spring concert

8 p.m., Boll Theatre. Also Saturday, April 8.

Tickets: \$10 for the public, \$8 for faculty, staff and students. Call the box office at 229-2545.

Sunday, April 9

Second Sunday Faculty Artist Series

3 p.m., Sears

Recital Hall

Willie L. Morris III

recital

Wednesday, April 12

Easter recess
begins after
last class.

Friday, April 14

University offices
closed.



Thursday, April 6

Author, scholar and cultural critic **Michael Eric Dyson** closes the University of Dayton's 2005-06 Diversity Lecture Series at 7:30 p.m. on Thursday, April 6, in Kennedy Union ballroom. The presentation is free, but tickets are required. Call 229-2545 or order online at <http://www.udayton.edu/~ku/tickets>.

In 13 books written in 13 years, Dyson has taken on such issues as Martin Luther King Jr.'s radical legacy in *I May Not Get There With You: The True Martin Luther King Jr.*; the virtues and crises of hip-hop culture in *Holler If You Hear Me: Searching for Tupac Shakur*; class warfare in black America in *Is Bill Cosby Right? Or Has the Black Middle Class Lost Its Mind?*; and most recently, the political and racial fallout from Hurricane Katrina in *Come Hell or High Water: Hurricane Katrina and the Color of Disaster*.

Dyson is the Avalon Foundation Professor in Humanities and professor of religious studies and Africana studies at the University of Pennsylvania.



Saturday, April 15

Saturday classes meet.

Monday, April 17

University offices closed.

Tuesday, April 18

Classes resume at 8 a.m.

Monday, April 24

Dayton Jazz Ensemble and University Jazz Band

7 p.m., Boll Theatre

Willie L. Morris, III and

Eric Wiltshire, conductors

Wednesday, April 26

Last day of classes.

at the galleries



"DIVAGUER," recent works by rc wonderly III, are on display in the ArtStreet Studio D Gallery through April 21. An artist's talk is scheduled for 1 p.m. on Wednesday, April 5.

The annual Horvath exhibit, a juried show displaying the best of student artwork, is open in the Rike Center Gallery through April 26.

Above: Photo of Rike Gallery during the 2005 Horvath Exhibit